

## **ABSTRACT**

A dimmer fixture has a ballast board 10, a main board 40 and switch 70. The ballast board and main board have no inductors so the fixture may be used for fluorescent and incandescent lamps. The ballast board 10 has two bridge circuits 14, 16 and two dc voltage regulators. A delay circuit 24 prevents the VCO 26 from operating for long enough to allow fluorescent lamps to warm up. The main board has four power MOSFETS or IGBTs. One of devices Q1 and Q2 is always on. One of devices Q3, Q4 completes the drive to the lamps. Control signals on ballast board 10 operate the power devices Q1-Q4.